WHAT IS CLAIMED IS:

1. An electromagnetic transducer, comprising:

a magnetic member;

a suspension for supporting the magnetic member at a central portion of the suspension;

a diaphragm connected to the suspension;

a magnet for generating magnetic flux on the magnetic member; and

a coil for generating alternating magnetic flux on the magnetic member.

2. An electromagnetic transducer according to claim 1, wherein the stiffness of the suspension is greater than the stiffness of the diaphragm with respect to a vibration direction.

3. An electromagnetic transducer according to claim 1, further comprising:

a center pole provided at an inner periphery side of the coil; and

a yoke provided at a side of the coil opposite to the diaphragm,

wherein the magnet surrounds the coil.

4. An electromagnetic transducer according to claim 1, wherein the diaphragm comprises a resin.

5. An electromagnetic transducer according to claim 1, wherein the suspension comprises a metal.

6. An electromagnetic transducer according to claim 1, wherein the suspension comprises a non-magnetic material.

7. An electromagnetic transducer according to claim 1, further comprising a thin magnetic plate provided between the magnet and the diaphragm.

8. An electromagnetic transducer according to claim 1, wherein an opening is provided at a central portion of the magnetic member.

9. An electromagnetic transducer according to claim 8, further comprising a cover for covering the opening.

10. An electromagnetic transducer, comprising:

a magnetic member;

a suspension for supporting the magnetic member at a central portion of the suspension;

a diaphragm connected to the suspension;

a yoke opposed to the diaphragm;

a center pole provided at a diaphragm side of the yoke;

a coil surrounding the center pole; and

a magnet surrounding the coil,

wherein an opening is provided in each of the magnetic member and the suspension, the center pole is shaped so as to be inserted into the openings, and an upper face of the center pole is positioned higher than or equal to a bottom face of the magnet member.

11. An electromagnetic transducer according to claim 1, wherein the suspension and the magnetic member are integrated together.

12. An electromagnetic transducer according to claim 1,

wherein an outer periphery of the diaphragm and an outer periphery of the suspension are positioned on the same plane.

13. A portable communication device comprising an electromagnetic transducer according to claim 1.

14. A portable communication device comprising an electromagnetic transducer according to claim 10.